

MOCNESS DATA SHEET

Vise CT-CANYONS Location Atlantis Campa Tow # 1Date 9 July 2010 Wind Speed 15 kts Direction SouthYear/Day 190 Sea State ModerateLocal Time 1645 to ? Start Lat 39.8304 Long -70.1654GMT Time 2045 to ? End Lat Long Net Size 333 μ m Net Condition GoodNet Mesh 1 m²C: MOCNESS\MOC DATA\CT-Krill
Processed Raw Filename MOC-01-001.RAW
Filename MOC-01-001.ProDown only
for T/S plot
Top of cast
190.702454
Bottom
190.722350
(408m)

NET TOW INFORMATION

Time	Angle	Flow	Volume	MWO
Open		Counts	Filtered	Net

SAMPLE INFORMATION

Jar #

Start	1645	?	?	only net zero had a catch
Net 0				
Down				
Net 1	end tow at 2045			
Net 2				
Net 3				
Net 4				
Net 5				
Net 6				
Net 7				
Net 8				
Closed				

COMMENTS: Tow was OK until ~400m when Strobe light System Failed
 tow ~~blow~~ in 11W unit & shortly after communication failed.

MOCNESS DATA SHEET

 Cruise CT-Canyons Location Atlantis Canyon Tow # MOC-01-002

 Date 9 July 2010 Wind Speed ~15 Kts Direction South

 Year/Day 190 Sea State Moderate

 Local Time 2021 to 2304 Start Lat 39.51.14 Long 70 11.97

 GMT Time 0021 to 0304 End Lat 39.8727 Long -70.2768

 Net Size 1-m² Net Condition Good

 Net Mesh 333/μm

 Processed MOC-01-002.BRD Raw Filename MOC-01-002.RAW
 Filename

NET TOW INFORMATION

 open
 Depth
 MVO
 Net

SAMPLE INFORMATION

Jar #

 Start Time 2021 Angle 37 Flow 263 Volume 0-712 M

 Net 0 2106

 Net 1 2106 ~47 186 1077 712

 Net 2 2124 ~48 360 2051.7 600

 Net 3 2203 ~48 352 1879.3 400

 Net 4 2235 ~55 128 602.9 200

 Net 5 2245 ~53 48 226.3 100

 Net 6 2249 ~54 44 202.6 75

 Net 7 2252 ~54 77 375.9 #9

 Net 8 2259 ~55 52 239.1 25

 9 Closed 2302 28 143.5 0

 10 2304

Net 0

Net 1

Net 2

Net 3

Net 4

Net 5

Net 6

Net 7

Net 8

Net 10

 COMMENTS: Had to adjust level wind on way down + up. No Strobe light
lots of delays setting level wind on Net 2 + others on the way up
One net still open at deck in spite of sending two additional commands and seeing net response

see revised volumes next page

gave 2 extra commands

No Net response

used incorrect Net

Net response

Net Response

Net Response

Net Response

Net Response

Net Response

in water at 190.848299 - getting good data

Net 1 start at 190.879190

Net 2 at 190.892847 increment net

Net 3 at 190.918912

Net 4 at 190.941539

Net 5 at 190.948472

Net 6 at 190.957157

Net 7 190.953484

Net 8 190.957755

Net 9 190.960359

- last good Salinities @ 190.960035

up profile
Temp + Sal

Possible scenario

Net 0 - 0 - 700+ m

Net 1 - 700+ - 400 m

Net 2 - 400 - 200 m

Net 3 - 200 - 100

Net 4 100 - 75

Net 5 75 - 50

Net 6 50 - 25

Net 7 25 - 0

Net 8 surface 0St

1 NN
0

/// 6

/// 7

/// 8

/// 9

/// 10

/// 11

/// 12

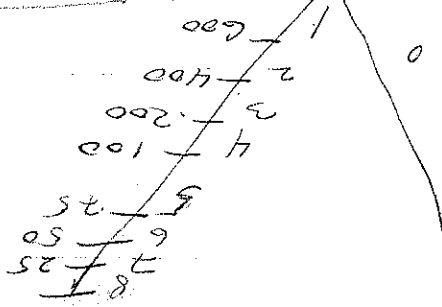
1 17

1 18

1 21

1 22

Something
screwy
with
underwater
unit
Should have
sequenced
Net numbers



18 Nov 2010 pttw

New Volumes

Tow: M-01-002 RV_Connecticut
Date: 9 July 2010

Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 169
Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	008.0	718.5	355.4	04.8	27.9	10.2	04.7	27.9	10.1	34.94	36.29	35.29
1	400.3	713.5	570.5	04.7	07.5	05.7	04.7	07.5	05.6	34.94	35.06	34.98
2	199.5	398.8	288.8	07.6	11.5	09.6	07.5	11.5	09.6	35.06	35.43	35.22
3	100.7	197.4	148.9	11.6	16.3	13.9	11.5	16.3	13.8	35.44	36.02	35.75
4	075.1	099.4	083.8	15.4	16.5	16.1	15.4	16.5	16.0	35.47	36.04	35.67
5	048.0	074.0	059.9	16.5	20.5	19.0	16.5	20.5	19.0	35.60	36.41	36.03
6	025.1	049.1	037.2	19.7	26.2	22.7	19.7	26.2	22.7	35.24	35.96	35.73
7	-001.1	024.3	009.9	26.0	26.9	26.7	26.0	26.9	26.7	26.57	35.41	34.55

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	22.89	27.69	27.00	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.39	27.67	27.58	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	27.03	27.39	27.19	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.46	27.02	26.79	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.13	26.45	26.25	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	25.44	26.09	25.80	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	23.35	25.49	24.57	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	16.55	23.33	22.49	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	26.0	73.0	48.6	00.4	137.8	02.9	-45.0	13.5	-16.2	00661	03267
1	31.0	65.0	45.1	01.2	02.7	02.0	-14.2	19.9	05.5	00854	03231
2	43.0	62.0	48.6	01.2	02.7	02.3	-18.3	16.4	06.2	00486	01938
3	49.0	60.0	52.2	02.3	03.1	02.7	06.6	14.4	10.0	00148	00623
4	51.0	57.0	54.1	01.9	03.1	02.7	-02.9	12.3	06.7	00057	00234
5	48.0	59.0	54.1	02.3	03.1	02.8	00.4	12.2	08.3	00049	00209
6	49.0	61.0	54.4	02.3	03.1	02.6	-03.7	10.5	03.6	00091	00387
7	46.0	69.0	55.4	02.3	03.9	02.8	00.2	13.2	07.4	00055	00247

net#	Yearday/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
		(NetOpenTime)					
0	190.848345	20:21:37	008.0	718.5	355.4	00661	03267
1	190.879236	21:6:5	400.3	713.5	570.5	00854	03231
2	190.918958	22:3:17	199.5	398.8	288.8	00486	01938
3	190.941586	22:35:53	100.7	197.4	148.9	00148	00623
4	190.948519	22:45:52	075.1	099.4	083.8	00057	00234
5	190.951204	22:49:44	048.0	074.0	059.9	00049	00209
6	190.953530	22:53:4	025.1	049.1	037.2	00091	00387
7	190.957801	22:59:14	-001.1	024.3	009.9	00055	00247
8	000.000000	0:0:0					

Note Net 8 opened at
surface - Not used
in this revision of
Volumes, see
Scenario previous
page

Environmental Parameters

Net Operation

Net - Ship Position

Program Settings

Time 23:2:55
 Pressure
 Temp 25.85 C
 Salinity 14.52 o/oo
 Density 7.701
 Oxygen
 Fluoresc.
 LightXmis
 Irradiance

Net_Num 8
 OpenTime
 Vol_Filtered
 Angle
 Flow_Counts 0
 Hor_Vel 4.3 kts
 Vert_Vel 0.0 m/min
 Battery

Latitude 39N 52.339
 Longitude 70W 16.589
 Net_Dist 118.8 m
 Total_Dist 6974.3 m

Pause Acqui
 Baud Rate 2400
 Sample Rate 4.0 sec
 Printer Off

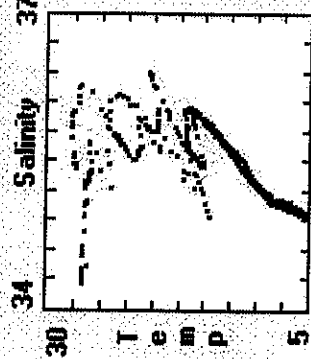
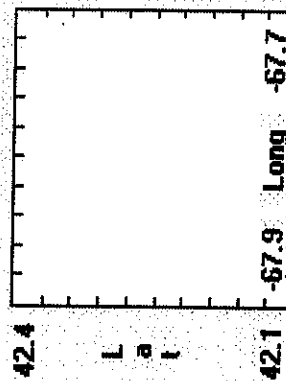
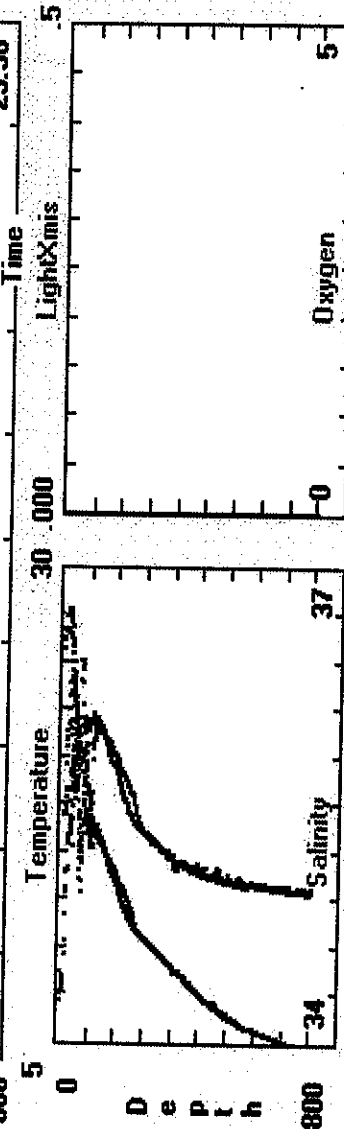
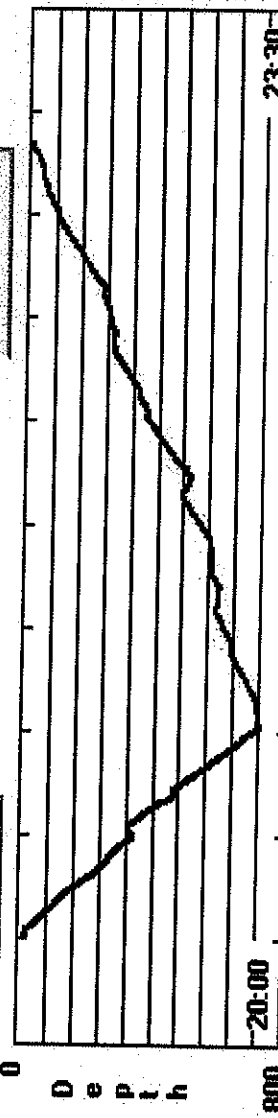
Processed File Name C:\MDCNESS\MDCDATA\CT_KRILL\M002.PRO
 Raw File Name C:\MDCNESS\MDCDATA\CT_KRILL\M_1_002.RAW

Acquisition Ended. trys = 0

Step 51BD Net

Increment Net

End Acqui



MOCNESS DATA SHEET

Cruise CT-Moxons Location Atlantic Canyon Tow # M-01-003
 Date 10 July 2010 Wind Speed ~15 Kts Direction Southwest
 Year/Day 191 Sea State Mod - cloudy with some light rain

Local Time 1625 to _____ Start Lat 3958.50 Long 70 8.71

GMT Time _____ to _____ End Lat 39.9796 Long -70.2123
39 58.78 -70 12.74

Net Size 1-m² Net Condition Good
 Net Mesh 333 μ m

Processed M-01-003.pro Raw Filename M-01-003.raw
 Filename _____

(for T/S plot)
 bottom of cast
191.722164
 top of cast
191.756736

NET TOW INFORMATION

DEPTH
 NET OPENED
~~NET~~

SAMPLE INFORMATION

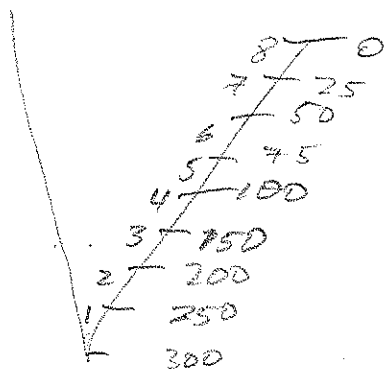
	Time Open	Angle	Flow Counts	Volume Filtered	DEPTH NET OPENED NET
Start	1625	157			0
Net 0	1717	48			300 m
Net 1	1717	49-51			300
Net 2	1727	49-51			250
Net 3	1731	49-52			200
Net 4	1738	53-			150
Net 5	1743	150			100
Net 6	1750	155			75
Net 7	1755				50
Net 8	1759				25
Closed	1810				0

Jar # _____

No Nets dropped - only net zero had a sample

Net 0 _____
 Net 1 ← No Net Res gave 2 extra steps
 Net 2 ← No Net Res saw 590
 Net 3 ← No Net Res
 Net 4 ← No Net Res not much angle change
 Net 5 ← No Net response
 Net 6 ← No Net response
 Net 7 ← ~~No~~ Net response
 Net 8 ← Net response! ?

COMMENTS: 1644 - stopped which to let bottom which was @ 260 m to go deeper
1651 - start down again
1654 - stop which at 257 m - water depth 276 m
1700 - start down again
1710 - start down again
1716 - start down again



- Net Num has weird Error
GP66A appears occasionally
overloading the Net NUM.

- Not getting Xtra net responses
Net count up to 10

Net came up with NO! nets released because a finger on the toggle release failed to release + jammed the toggle. Only a second finger was released but the net did not drop because the first net bar was stuck. The foot that no other fingers were released - in spite of power being sent when given the net command/step net. Jamming the first finger must have prevented the toggle shaft from turning - There are two fingers in the toggle that look like they could hang up. They are off center relative to the opening on the shaft and a little side pressure can cause them to hang up and not drop through the shaft opening. For the next tow we filed the fingers a bit to hopefully prevent such a hang up again, but this needs to be looked at. bush in port

- Another problem is that the rings + finger snaps can jam in the net bars. They also make it nearly impossible to loosen the net bar traps at the end of a tow.

- One more issue is that the swaged fitting cables are not sized very well. When all the bars are loaded in the toggle release, many are loose at the bottom, putting most of the weight on the bottom bar.

18 Nov 2010 PHLW
New Volume computation

Tow: M-01-003 RV_Connecticut

Date: 10 July 2010

Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 169

Flow Meter Calibration 6.41 (m/count)

MOORESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	000.6	304.1	169.7	09.2	25.6	14.0	09.2	25.6	14.0	00.94	50.00	35.35

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.27	34.89	26.35	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	16.0	73.0	53.9	01.2	15.2	02.3	-22.0	12.2	00.0	01567	06105

net#	Yearday/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
		(NetOpenTime)					
0	191.681065	16:20:44	000.6	304.1	169.7	01567	06105
1	191.743264	17:50:18					

MISS [Data Acquisition and Control System]

61 Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters

Net Operation

Time 18:9:57 Net_Num 0
 Pressure [Redacted] OpenTime [Redacted]
 Temp 24.78 C Vol_Filtered [Redacted]
 Salinity 21.51 o/oo Angle [Redacted]
 Density 13.249 Flow_Counts 1164
 Oxygen [Redacted] Hor_Vel 1.2 kts
 Fluoresc. [Redacted] Vert_Vel 0.8 m/min
 LightXmis [Redacted] Battery [Redacted]
 Irradiance [Redacted]

Net - Ship Position

Latitude 39N 58.772°
 Longitude 70W 12.737°
 Net_Dist 5767.2 m
 Total_Dist 5767.2 m

Pause Acqui [Redacted] Reset [Redacted]

Baud Rate 2400

Sample Rate 4.0 sec

Printer Off

Processed

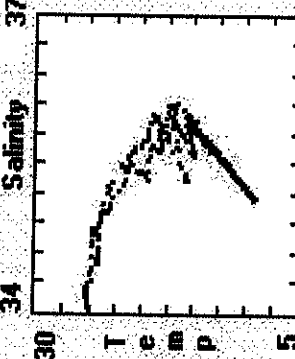
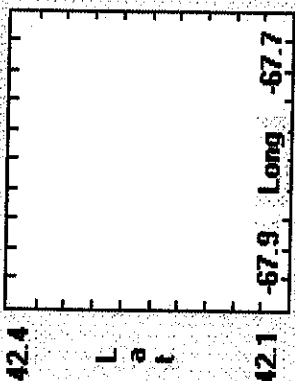
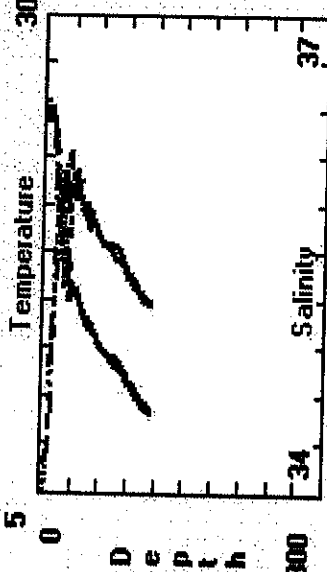
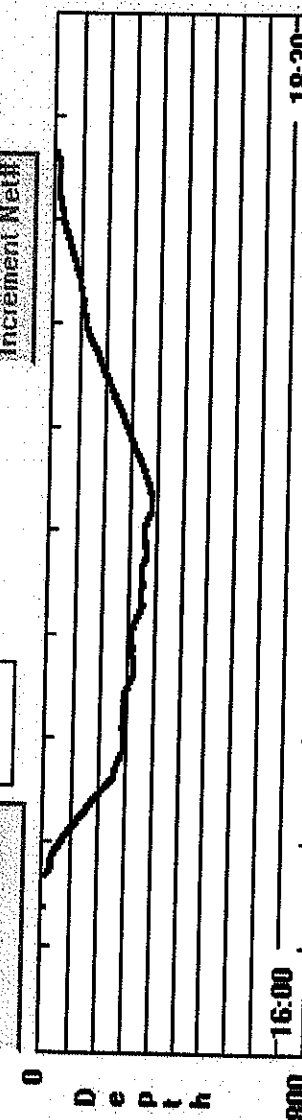
File Name C:\MOCNESS\MOCDATA\CT_KRILL\M003.PRO

Raw File Name C:\MOCNESS\MOCDATA\CT_KRILL\M_1_003.RAW

Acquisition Ended. trys = 0

Step STBD Net

Increment NetH



MOCNESS DATA SHEET

Note
No attempt to
compute
new
volumes
ptdw
18 Nov 2000

Vise CT-CANYONS

Location

Atlantic Canyon

Tow #

M-01-004

Date

10 July 2010

Wind Speed

~ 15 kt

Direction

SW

Year/Day

191

Sea State

huge swells - Mod chop

Labeled

Local Time

2112 to 2300

Start Lat

39 58.05

Long

70 8.26

Tow 3

GMT Time

2300

to

End Lat

39 58.23

Long

70 12.27

Net Size

1-m²

Net Condition

Good

Net Mesh

333 μ m

Processed

Filename

M01-004-pro

Raw Filename

M-01-004.Raw

Tow did not work!

only 1 net
released

NET TOW INFORMATION

DEPTH

Time
Open

Angle

Flow

Volume

Counts

Filtered

~~Net~~Net
OPENED

SAMPLE INFORMATION

Jar #

Start	2112					0
Net 0		250	798	4561		293
Down	2215					
Net 1	932535					270
	2215					
Net 2-						
Net 2	12301	250	~388	~1588		0
Net 3						
				approximate volume		200
Net 4				because net was		150
				not closed at		
Net 5				surface		100
Net 6						75
Net 7						50
Net 8						25
Closed						0

Net 0

No Response -

Net 1

finally a response

Net 2

But no other nets
were dropped

Net 3

Net 4

Net 5

Net 6

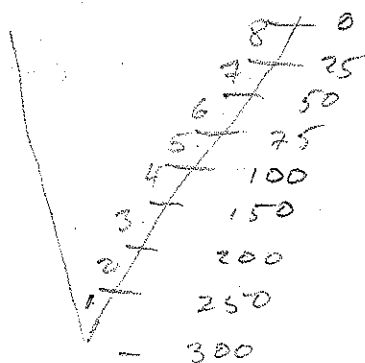
Net 7

Net 8

Response was facing
outboard - 180° out

COMMENTS:

Paying out & then stopping to wait for the bottom to get deeper.Failed to get net system to work - First net step failed
to produce net response for several triesNet to bottom on payout - Ships speed dropped



Time at bottom of test 191.932535 | upcast
Time at surface 191.950845

MOCNESS DATA SHEET

Unit # 124

used on this tow

Cruise CT-Canyon

Location Veatch Canyon

Tow # M-01-005

Date 10 July 2010

Wind Speed 5 kts

Direction S

Year/Day 192

Sea State Big Swells + light chop

Local Time 1733 to

Start Lat 39 59.93

Long 89 32.67

GMT Time to

End Lat

Long

Net Size

Net Condition

Net Mesh

Processed M-01-005-PRO
Filename

Raw Filename M-01-005-RAW

NET TOW INFORMATION

Time
Open

Angle

Flow

Volume

Filtered

Net
Depth
MWO
Net
Open

SAMPLE INFORMATION

Jar #

Start 1733

Net 0

Down

Net 1

Net 2

Net 3

Net 4

Net 5

Net 6

Net 7

Net 8

Closed

250

21

111.2

offset
15m

25

upper 10m

55

51

~244.6

~75 - 9

upper 10m

250

29

~146

upper 10m

~45

20

~117

upper 5m

Net 3 brought open onto deck

192-741910 - end of tow

Net 0

Net 1

Net 2

Net 3

Net 4

Net 5

Net 6

Net 7

Net 8

Test tow which worked

Samples preserved for Tim White's

bird survey work on this cruise.

Info on what plankton might be available for sea birds to eat at the surface

COMMENTS: Pressure on deck 9.0m - at surface 11.6m

Reading on deck 10.3m - Reading after letting system warm up is about 10.0m

This was a test tow to see if my minor fix on the motor drive worked. We sent Net down with Unit 124, a fresh battery and a motor with the shaft seal reseated and flush with the end cap. It was not perfectly flush when ^{we} went to remove it.

- Net was set to about 12 meters (Depth was 25m but there is an offset in the pressure sensor. Immediately we opened net 1 and it took two steps to get a net response. Net system was hauled to the surface to confirm toggle release - had one finger released - It was! Put net back down a few meters & tripped another net. ^{Got a net response} Again system brought to the surface and fingers release check - Two showed up. One more time we put the net down a few meters and opened Net 3. Got a response. So it seems the system is working. We brought MOCNESS back on board and began to wash the nets & get the system ready for a real tow.

18 Nov 2010 P4W

New Volume

Tow: M-01-005 RV_Connecticut

Date: 10 July 2010

Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	009.7	021.5	017.6	15.2	20.1	16.8	15.2	20.1	16.8	31.96	33.24	32.70
1	005.7	022.6	012.8	14.7	21.3	18.7	14.7	21.3	18.7	26.27	33.24	32.28
2	005.5	011.0	008.7	18.1	21.2	19.6	18.1	21.2	19.5	31.26	32.32	32.09
3	005.2	006.2	005.5	20.9	21.3	21.1	20.9	21.3	21.1	05.52	32.03	29.73

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	22.41	24.49	23.79	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	17.81	24.50	23.01	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	21.67	23.18	22.65	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	02.18	22.24	20.47	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	45.0	74.0	56.5	01.2	06.6	03.5	-36.0	01.9	-16.2	00019	00134
1	44.0	72.0	55.3	01.6	02.7	02.1	-05.1	16.1	02.9	00074	00252
2	32.0	68.0	54.3	01.2	03.1	02.2	-08.4	07.4	00.1	00041	00150
3	29.0	72.0	51.2	00.0	01.6	00.9	-01.8	01.9	00.1	00068	00114

net#	YearDay/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
0	192.731586	17:33:29	009.7	021.5	017.6	00019	00134
1	192.732523	17:34:49	005.7	022.6	012.8	00074	00252
2	192.736007	17:39:51	005.5	011.0	008.7	00041	00150
3	192.737951	17:42:38	005.2	006.2	005.5	00068	00114
4	192.737951	17:42:38					

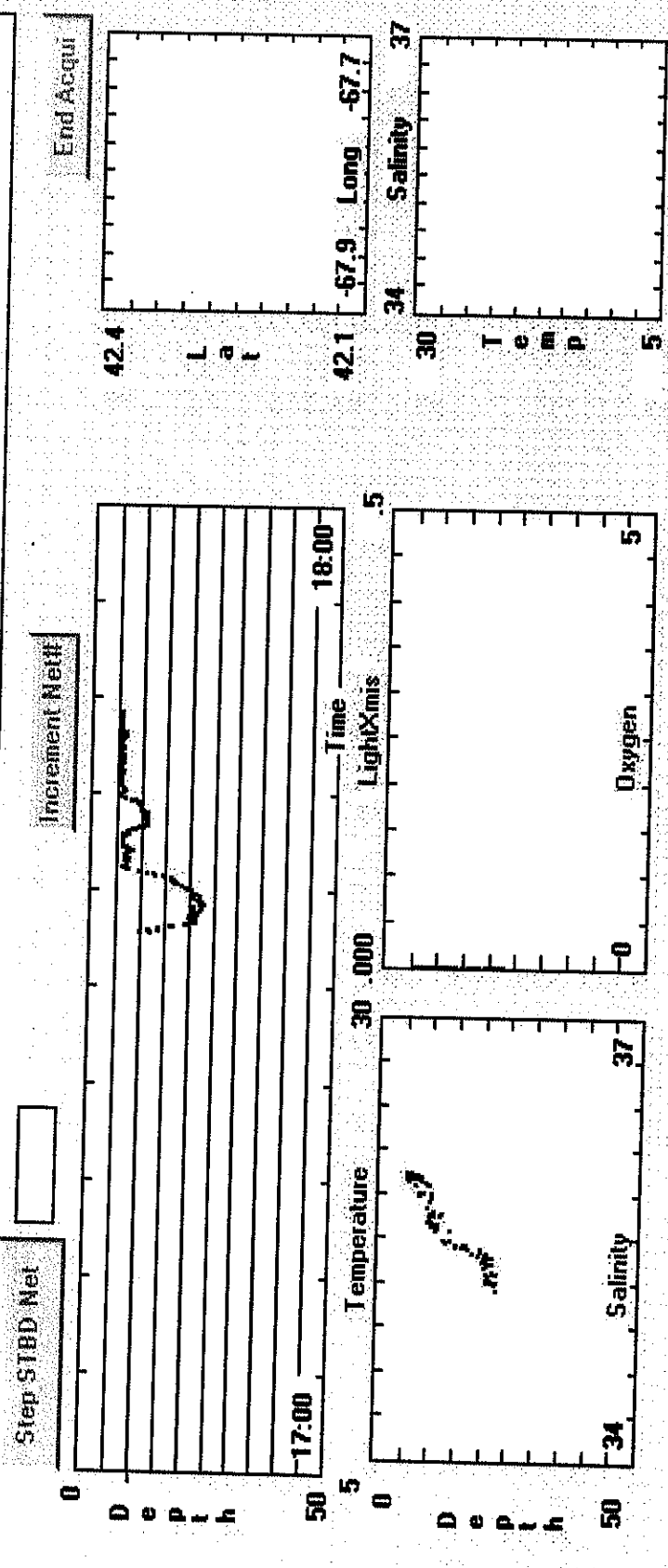
↑
offset +5m

51 NSS [Data Acquisition and Control System]

51 Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	17:47:8	Net_Num	3	Latitude	40N 3497	Pause Acqui	Reset
Pressure		OpenTime		Longitude	69W 38.118	Baud Rate	2400
Temp	21.13 C	Vol_Filtered		Net_Dist	302.7 m	Sample Rate	4.0 sec
Salinity	32.0 o/oo	Angle		Total_Dist	858.1 m	Printer	Off
Density	22.175	Flow_Counts	19	Processed File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M005.PRO		
Oxygen		Hor_Vel	0.4 kts	Raw File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M_1_005.RAW		
Fluoresc.		Vert_Vel	0.2 m/min	Acquisition Ended. tsys = 0			
LightXmis		Battery					
Irradiance							

5 meters



MOCNESS DATA SHEET

Cruise CT-CanyonLocation Veatch Canyon Tow # M-01-006Date 10 July 2010 Wind Speed 5 Kts Direction SYear/Day 192 Sea State large swell/light chopLocal Time 2031 to 2142 Start Lat 39 56.83 Long 69 56.83GMT Time 0031 to 0142 End Lat 39 59.09 Long 69 36.86Net Size 1-m² Net Condition GoodNet Mesh 333µmfor TS/plot
uptrace
start - bottom of cast
192.860796
end surface
192.903461Processed M-01-006-pro
FilenameRaw Filename M-01-006.raw

VERY NICE TOW - lots of Euphausiids

NET TOW INFORMATION

Depth

Time	Angle	Flow	Volume	Depth
Open	Counts	Filtered	Net	opened

SAMPLE INFORMATION

Jar #

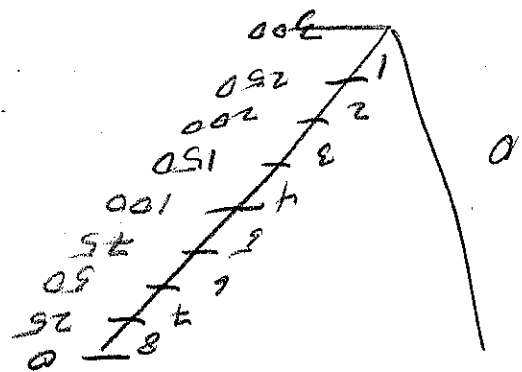
Start	2031			
Net 0				
Down	2051	164	997.6	300 (310)
Net 1	2052	72	360.8	250 (260)
Net 2	2058	61	307.9	200 (210)
Net 3	2104	71	365.7	150 (160)
Net 4	2110	85	454.5	100 (110)
Net 5	2118	54	288.7	75 (85)
Net 6	2123	67	361.0	50 (60)
Net 7	2129	67	361.0	25 (35)
Net 8	2134	80	433.0	0
Closed	2141			

see revised volumes next page
pH 10
18 Nov 2010

Net 0	- Response
Net 1	- Response
Net 2	- Response
Net 3	- Response
Net 4	- Response
Net 5	- Response
Net 6	- Response
Net 7	- Response
Net 8	- Response

offset depth that net released at

COMMENTS: First net fired on 3 steps!



Tow: M-01-006 RV_Connecticut

Date: 10 July 2010

Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOORENESS STATISTICAL SUMMARY

New Volume

18 Nov 2010

Pttw

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	005.1	312.7	155.3	07.5	22.8	11.8	07.5	22.8	11.8	01.21	50.00	35.83
1	254.2	306.0	281.4	07.6	08.5	08.0	07.6	08.5	08.0	35.08	35.13	35.10
2	204.2	252.7	223.6	08.6	10.0	09.5	08.6	10.0	09.5	35.13	35.27	35.21
3	154.6	204.0	175.9	09.9	11.8	10.8	09.9	11.8	10.8	35.26	35.44	35.35
4	104.6	153.1	123.3	11.9	12.8	12.5	11.9	12.8	12.5	35.30	35.51	35.43
5	081.7	104.1	092.0	11.8	12.8	12.2	11.8	12.8	12.2	34.56	35.30	34.92
6	054.3	082.7	070.5	10.8	11.9	11.5	10.8	11.9	11.5	33.72	34.66	34.25
7	030.6	054.0	038.8	10.8	13.7	12.5	10.8	13.7	12.5	33.36	33.76	33.57
8	004.8	029.8	016.2	13.6	20.7	16.3	13.6	20.7	16.3	09.93	33.53	32.02

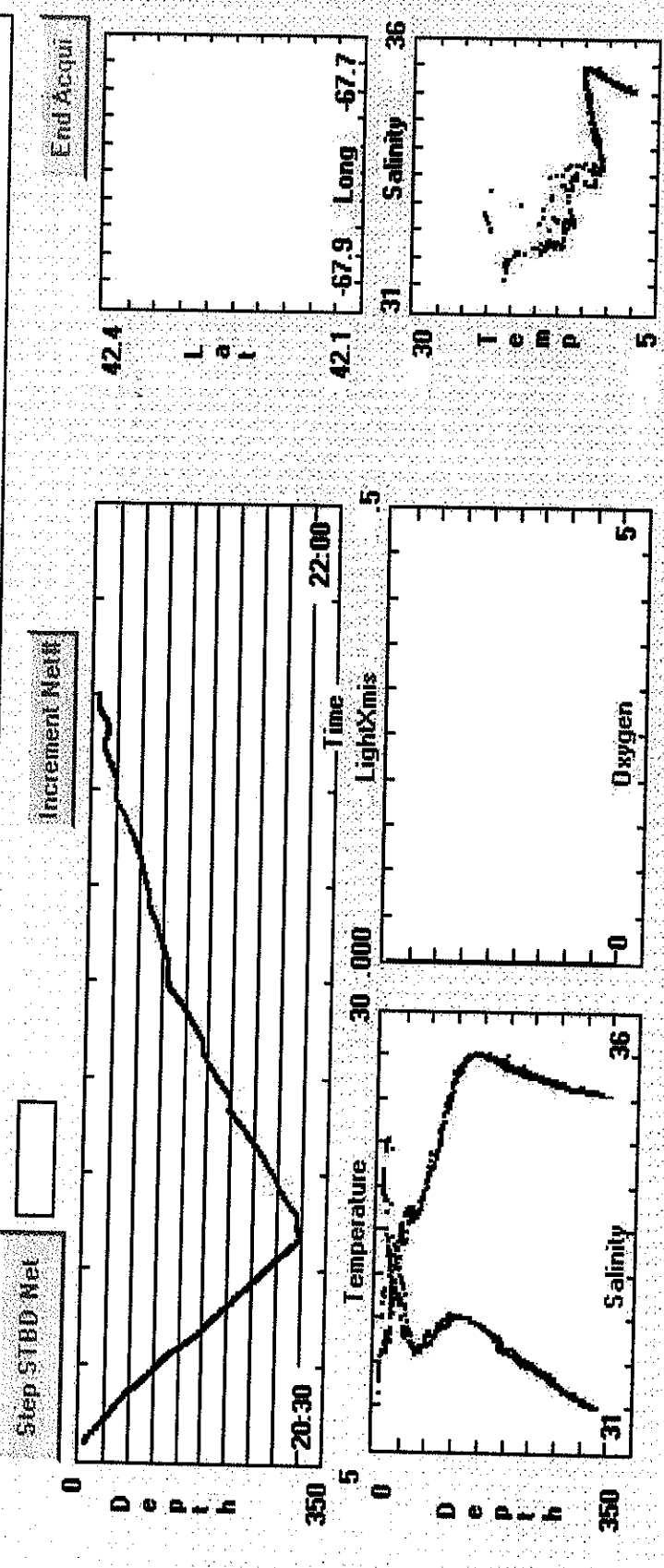
net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.09	35.97	27.19	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.30	27.40	27.36	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	27.16	27.29	27.21	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.97	27.17	27.08	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.68	26.97	26.82	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	26.28	26.68	26.49	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	25.82	26.34	26.11	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	25.09	25.79	25.39	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	05.58	25.14	23.38	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irragv
0	0.0000000000	0.0000000000	0.0000000000
1	0.0000000000	0.0000000000	0.0000000000
2	0.0000000000	0.0000000000	0.0000000000
3	0.0000000000	0.0000000000	0.0000000000
4	0.0000000000	0.0000000000	0.0000000000
5	0.0000000000	0.0000000000	0.0000000000
6	0.0000000000	0.0000000000	0.0000000000
7	0.0000000000	0.0000000000	0.0000000000
8	0.0000000000	0.0000000000	0.0000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	32.0	75.0	51.8	00.0	03.9	01.5	-27.0	06.6	-14.0	00329	01017
1	46.0	56.0	50.6	01.9	02.7	02.4	-00.2	12.6	08.1	00093	00372
2	46.0	61.0	49.5	01.9	02.7	02.4	-02.3	14.0	09.3	00081	00324
3	45.0	55.0	49.5	01.9	02.7	02.4	-01.8	15.1	07.8	00093	00377
4	44.0	55.0	48.4	01.9	02.7	02.3	-02.3	14.0	06.6	00114	00469
5	47.0	54.0	49.6	01.9	02.7	02.4	-01.4	07.6	04.9	00072	00298
6	46.0	57.0	49.4	01.9	02.7	02.3	-01.7	08.5	04.3	00089	00372
7	45.0	54.0	49.6	01.9	02.7	02.4	-01.2	10.3	04.8	00077	00320
8	43.0	63.0	49.3	00.4	02.7	02.3	-06.4	10.5	03.5	00112	00446

net#	Yearday/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
(NetOpenTime)							
0	192.850926	20:25:20	005.1	312.7	155.3	00329	01017
1	192.869919	20:52:41	254.2	306.0	281.4	00093	00372
2	192.874282	20:58:57	204.2	252.7	223.6	00081	00324
3	192.878090	21:4:26	154.6	204.0	175.9	00093	00377
4	192.882465	21:10:44	104.6	153.1	123.3	00114	00469
5	192.887801	21:18:26	081.7	104.1	092.0	00072	00298
6	192.891192	21:23:18	054.3	082.7	070.5	00089	00372
7	192.895382	21:29:21	030.6	054.0	038.8	00077	00320
8	192.899005	21:34:34	004.8	029.8	016.2	00112	00446
9	192.904248	21:42:7					

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	21:42:19	Net_Num	9	Latitude	39N 59.088	Pause Acqui	Reset
Pressure		OpenTime		Longitude	69W 36.861	Baud Rate	2400
Temp	20.85 C	Vol_Filtered		Net_Dist	19.5 m	Sample Rate	4.0 sec
Salinity	31.65 o/oo	Angle		Total_Dist	5033.2 m	Printer	Off
Density	21.984	Flow_Counts	0	Processed File Name	C:\MOON\MOONDATA\CT_KRILL\M006.PRO		
Oxygen		Hor_Vel	0.4 kts	Raw File Name	C:\MOON\MOONDATA\CT_KRILL\M_01_006.RA		
Fluoresc.		Vert_Vel	0.4 m/min	Acquisition Ended. tries = 0			
LightXmis		Battery					
Irradiance							



MOCNESS DATA SHEET

5046 = 300.

5 min

x 62

300 min

Cruise CT-Canyons

Location

Heatch Canyon Tow # M-01-007Date 13 July 2010Wind Speed 5 Kts

Direction _____

Year/Day 193Sea State low swell - light chopLocal Time 0819 to 1021Start Lat 39.56.50 Long 69 39.50GMT Time 1219 to 1421End Lat 39 59.02 Long 69 35.84Net Size 1-m²Net Condition GoodNet Mesh 333µm

For TS plot
downcast
start down
194.349178
bottom of tow
194.384306

Processed M-01-007.ARDRaw Filename M-01-007.Raw

Filename

Note adjust offset in UW124 so pressure reads zero at surface before
the tow

Very Nize tow except for bottom
touch

NET TOW INFORMATION

Depth

Time
Open

Angle

Flow

Volume

Filtered

~~Net~~

Net

SAMPLE INFORMATION

Jar #

Start	0819					
Net 0	0916	246	471	2820.0	0	
Down	0916				300	
Net 1	0916	246	158	897.4	300	max depth 322
Net 2	0933	246	80	451.3	250	
Net 3	0940	248	90	484.2	200	
Net 4	0949	249	91	484.3	150	
Net 5	0957	250	85	437.9	100	
Net 6	1004	250	86	456.5	50	
Net 7	1011	248	60	339.0	25	
Net 8	1017	250	40	229.9	5	
Closed	1020				0	

Net 0

Net response

Net 1

Net response

Net 2

Net response

Net 3

Net response

Net 4

Net response

Net 5

Net response

Net 6

Net response

Net 7

Net response

Net 8

Net response

COMMENTS: Near surface sampling to see what petrel might be feeding on. Many
birds sitting in flocks on water feeding. Net zero hit bottom just before
opening net one - caught two red crabs, piece of toad, lots of mud
But not also caught lots of krill. A storm petrel got into the wrench chain
drive and got crushed. Problem with salinities on up trace

Tow: M-01-007 RV_Connecticut

Date: 13 July 2010

Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

New Volume 18 Nov 2010

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	005.0	315.4	180.2	07.7	26.3	11.1	07.7	26.3	11.1	00.18	50.00	34.73
1	255.3	327.3	306.4	07.3	09.3	07.8	07.2	09.2	07.7	23.25	24.20	23.91
2	204.8	253.0	231.9	09.3	11.0	10.3	09.3	10.9	10.2	23.27	23.83	23.62
3	155.7	203.5	175.6	11.0	11.9	11.5	10.9	11.9	11.5	23.71	23.87	23.80
4	105.9	154.6	133.6	11.9	12.5	12.2	11.9	12.5	12.2	23.80	23.96	23.87
5	055.4	105.1	080.6	12.3	12.9	12.6	12.2	12.9	12.6	23.76	24.06	23.93
6	029.6	054.0	041.5	12.8	15.7	14.0	12.8	15.7	14.0	23.43	24.03	23.77
7	009.5	029.3	020.9	15.4	20.8	16.7	15.4	20.8	16.7	22.06	24.09	23.47
8	005.4	010.7	008.0	19.8	21.8	21.1	19.8	21.8	21.1	22.57	23.81	23.21

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.88	34.70	26.50	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	17.90	18.88	18.61	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	17.84	18.20	18.05	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	17.93	18.07	17.99	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	17.84	17.98	17.93	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	17.74	18.07	17.91	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	16.94	17.95	17.53	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	14.73	17.49	16.75	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	15.05	16.29	15.52	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

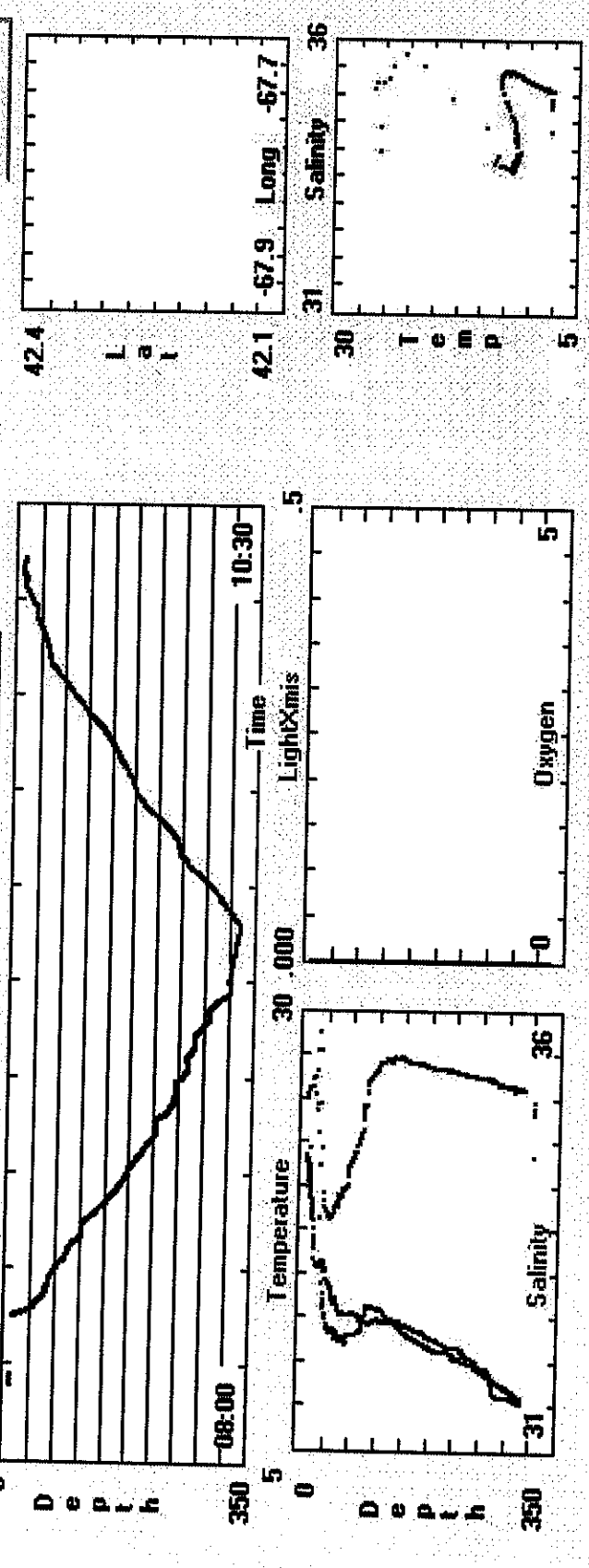
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	33.0	86.0	49.9	00.0	02.3	01.8	-27.5	04.3	-05.6	00837	02892
1	43.0	53.0	47.2	01.6	02.7	02.0	-04.3	13.0	03.4	00242	00925
2	43.0	51.0	45.7	01.9	02.7	02.1	00.2	14.4	06.5	00116	00465
3	46.0	52.0	48.5	01.9	02.7	02.3	01.9	11.8	06.2	00120	00499
4	47.0	52.0	48.9	01.9	02.7	02.4	03.1	10.5	06.3	00117	00499
5	47.0	56.0	49.9	02.3	02.7	02.5	05.6	09.3	07.2	00104	00452
6	47.0	55.0	50.8	02.3	02.7	02.5	-00.2	10.1	03.5	00108	00470
7	45.0	50.0	47.5	01.6	02.7	02.2	-02.5	07.2	03.7	00084	00349
8	39.0	55.0	47.7	01.9	02.7	02.3	-01.1	07.2	01.2	00054	00237

net#	Yearday/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
		(NetOpenTime)					
0	194.341574	8:11:51	005.0	315.4	180.2	00837	02892
1	194.386910	9:17:9	255.3	327.3	306.4	00242	00925
2	194.398194	9:33:23	204.8	253.0	231.9	00116	00465
3	194.403634	9:41:13	155.7	203.5	175.6	00120	00499
4	194.409259	9:49:19	105.9	154.6	133.6	00117	00499
5	194.414734	9:57:13	055.4	105.1	080.6	00104	00452
6	194.419618	10:4:14	029.6	054.0	041.5	00108	00470
7	194.424676	10:11:32	009.5	029.3	020.9	00084	00349
8	194.428634	10:17:13	005.4	010.7	008.0	00054	00237
9	194.431181	10:20:54					

Environmental Parameters Net Operation Net - Ship Position Program Settings

Time	10:21:47	Net_Num	9	Latitude	39N 59.016	Pause Acqui	Reset
Pressure		OpenTime		Longitude	69W 35.835	Baud Rate	2400
Temp	20.9 C	Vol_Filtered		Net_Dist	53.4 m	Sample Rate	4.0 sec
Salinity	23.95 o/oo	Angle		Total_Dist	7876.2 m	Printer	Off
Density	16.131	Flow_Counts	10	Processed File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M007.PRO		
Oxygen		Hor_Vel	2.3 kts	Raw File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M_01_007.RA		
Fluoresc.		Vert_Vel	-1.7 m/min	Acquisition Ended_trys = 0			
LightXmis		Battery					
Irradiance							

Step STBD Net ☐ Increment Net# ☐ End Acqui



MOCNESS DATA SHEET

Cruise CT-Canyons Location Veatch Canyon Tow # M-01-008Date 13 July 2010 Wind Speed ~10 Kts Direction _____Year/Day 194 Sea State Moderate swell - some wind chop - still niceLocal Time 1249 to _____ Start Lat 39 52.96 Long 69 32.34

GMT Time _____ to _____ End Lat _____ Long _____

Net Size 1 m² Net Condition Good
Net Mesh 333 μ mfor TS plot
down trace
start top of cast
194.534745
end bottom of cast
194.571111
571366Processed M-01-008.pro Raw Filename M-01-008.raw
Filename _____

Tow in outer reach of Veatch Canyon

NET TOW INFORMATION

Depth

Time
OpenAngle Flow
CountsVolume
Filtered~~Net~~
Net
Opened

SAMPLE INFORMATION

Jar #

	Time Open	Angle Flow Counts	Volume Filtered	Depth Net Opened
Start	1249			
Net 0	1344	284	1931.5	690 ^v
Down	1344			
Net 1	1344	121	706.1	690 ^v
Net 2	1356	327	1658.5	605 ^v
Net 3	1423	288	1403.0	400 ^v
Net 4	1445	113	570.9	196 ^v
Net 5	1455	55	283.1	100 ^v
Net 6	1500	52	269.3	74.6 ^v
Net 7	1504	44	236.8	50 ^v
Net 8	1508	50	(257.6) at 100	25 ^v
Closed	1512			0

see revised Volumes
Net 0 page 18 Nov 2010

Net 0 _____

Net 1 response

Net 2 Response

Net 3 response

Net 4 response

Net 5 response

Net 6 response

Net 7 response

Net 8 response - but Net

did not drop

was closed

on the deck

so how to

see reverse

COMMENTS: Touched bottom when net first at 400 m depth - got antenna explain

So Net 8 open at surface - Not sure whether it opened
at 25 m or not - Finger on release hung up preventing net from
Salinity cell stopped working right at bottom of tow

4 salps were removed from net 8
det. by Paola Bittu to be Pegca confederata
all had a length of 1 cm from oral aperture to anal
apertures. 3 were frozen

18 Nov 2010 *ptw*

Tow: M-01-008 RV_Connecticut

Date: 13 July 2010

Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

New Volume

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	000.9	712.0	395.1	04.8	27.6	09.0	04.8	27.6	09.0	00.01	35.60	34.31
1	611.6	693.9	659.9	05.0	05.4	05.2	05.0	05.3	05.1	33.74	33.92	33.85
2	405.1	610.3	495.2	05.4	06.7	06.0	05.3	06.6	05.9	33.55	33.88	33.78
3	202.4	404.1	304.3	06.7	10.9	08.5	06.7	10.8	08.5	32.65	33.68	33.31
4	103.8	203.2	155.8	10.9	13.2	12.2	10.8	13.2	12.2	32.43	33.22	32.96
5	078.9	102.9	087.7	13.1	13.8	13.3	13.1	13.8	13.3	32.86	33.59	33.30
6	055.1	078.6	069.1	13.5	15.8	14.8	13.5	15.8	14.7	30.92	33.51	32.32
7	029.8	054.5	040.6	15.3	21.1	19.1	15.3	21.1	19.1	29.32	31.70	30.21

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-03.59	27.80	26.47	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	26.65	26.82	26.75	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.38	26.75	26.59	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	24.98	26.41	25.87	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	24.72	25.21	24.98	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	24.58	25.27	25.01	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	22.66	25.06	23.96	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	20.25	23.37	21.33	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irragv
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	30.0	84.0	43.9	00.0	03.1	01.1	-29.2	16.3	-12.9	00811	01973
1	39.0	50.0	44.2	01.6	02.7	02.0	01.3	15.0	06.6	00186	00728
2	45.0	57.0	50.3	01.9	03.1	02.5	-03.1	13.8	07.7	00401	01711
3	47.0	57.0	51.2	01.6	03.1	02.7	-17.1	17.9	09.0	00333	01449
4	46.0	58.0	49.0	01.9	02.7	02.5	00.8	15.5	10.3	00143	00590
5	48.0	56.0	51.0	01.9	02.7	02.5	-01.7	12.2	05.6	00068	00292
6	47.0	56.0	50.7	02.3	02.7	02.5	02.5	10.1	05.3	00064	00278
7	43.0	52.0	47.9	01.9	02.7	02.4	00.8	11.7	07.0	00057	00244

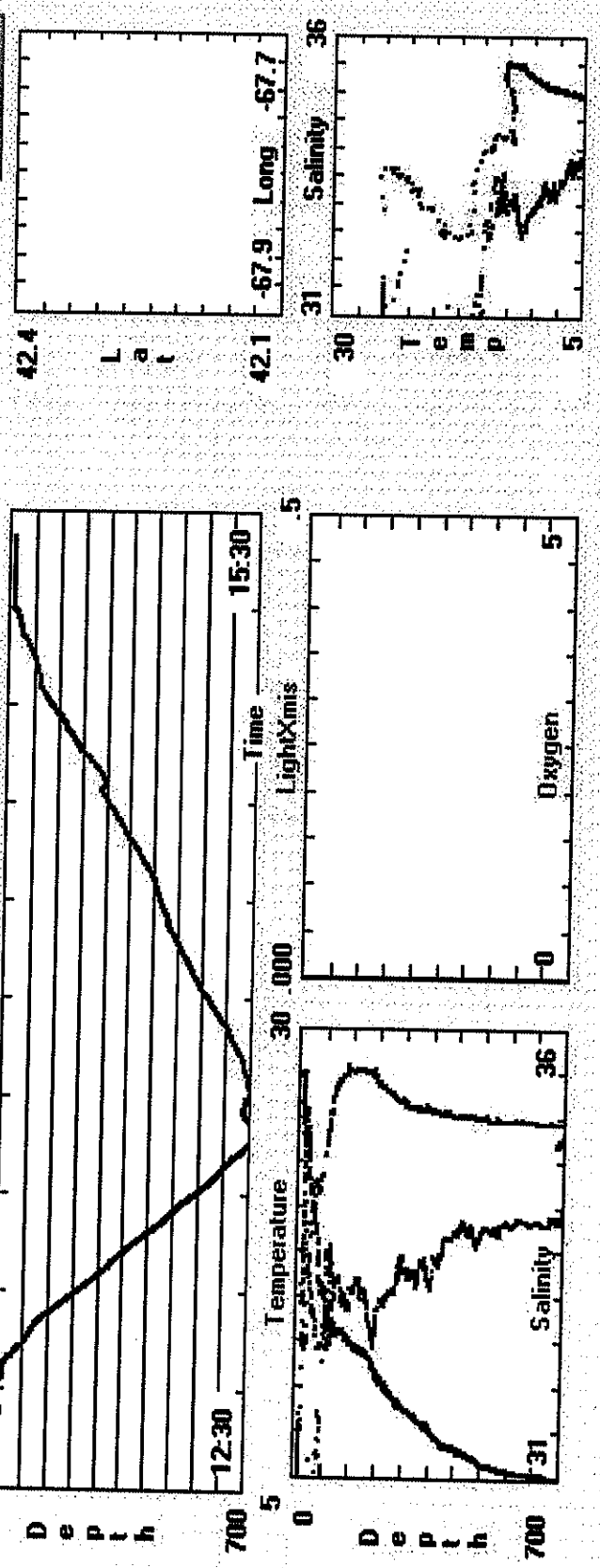
net#	Yearday/Time	hh:mm:ss (NetOpenTime)	pmin	pmax	pavg	#obs	vol
0	194.525926	12:37:20	000.9	712.0	395.1	00811	01973
1	194.572384	13:44:13	611.6	693.9	659.9	00186	00728
2	194.581076	13:56:44	405.1	610.3	495.2	00401	01711
3	194.599757	14:23:39	202.4	404.1	304.3	00333	01449
4	194.615266	14:45:58	103.8	203.2	155.8	00143	00590
5	194.621968	14:55:38	078.9	102.9	087.7	00068	00292
6	194.625174	15:0:15	055.1	078.6	069.1	00064	00278
7	194.628183	15:4:35	029.8	054.5	040.6	00057	00244
8	194.630880	15:8:28					

WDCNSS (Data Acquisition and Control System)

61 Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	15:25:24	Net_Num	8	Latitude	39N 52.8'	Pause Acqui	Reset
Pressure		OpenTime		Longitude	69W 37.593	Baud Rate	2400
Temp	26.85 C	Vol_Filtered		Net_Dist	967.8 m	Sample Rate	4.0 sec
Salinity	50.0 o/oo	Angle		Total_Dist	9021.8 m	Printer	Off
Density	34.121	Flow_Counts	89	Processed File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M008.PRO		
Oxygen		Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M_01_008.RA		
Fluoresc.		Vert_Vel	-0.2 m/min	Acquisition Ended. tlys = 0			
LightXmis		Battery					
Irradiance							

Step STBD Net ☐ Increment Net ☐ End Acqui



MOCNESS DATA SHEET

Site Ct Canyons Location East of Heated Canyon Tow # M-01-009

Date 13 July 2010 Wind Speed 15-20 kts Direction South

Year/Day 194 Sea State a bit rough - swells and moderate chop

Local Time 2015 to _____ Start Lat 39 55.37 Long 69 21.53 W

GMT Time 2138 to _____ End Lat 39 56.68 Long 69 19.10 (Need to recheck these)

Net Size 1-m² Net Condition Good
Net Mesh 333 μ m

up-time for
TG Plot
up trace - start up
194.860683
up trace - end
194.901933

Processed M-01-009.PRO Raw Filename M-01-009.RAW
Filename Tow on Continental slope away from Canyons

m-01-009.M00.PRO is a file that eliminates a header inside the data file related to the restart thing net 8.

NET TOW INFORMATION

Time Angle Flow Volume ~~MNO~~ Net
Open Counts Filtered Opened

SAMPLE INFORMATION

Jar #

	Start	Net 0	Down	Net 1	Net 2	Net 3	Net 4	Net 5	Net 6	Net 7	Net 8	Closed
	2015	2039	46	226	1375.5	300						
	2042	50	105	544.3	298.1							
	2052	55	89	420.9	245							
	2058	55	146	658.3	200							
	2109	56	108	482.6	150							
	2116	55	61	291.7	101							
	2121	55	50	248.0	76.5							
	2125	55	59	287.6	50.4							
	2129	54	?	?	26.2							
	2138											

Net 0 Response extra command to get NR
Net 1 No response (extra command)
Net 2 Indifferent net
Net 3 Response
Net 4 Response
Net 5 Response
Net 6 Response
Net 7 Response
Net 8 Response - Need to compute this volume

COMMENTS: Salinity cell 120 replaced previous one.

While Net 8 open got error that killed the program (Protection Fault)
We tried to restart, but GPS gave problems. Finally re-started after turning GPS off for end of tow

18 Nov 2010

New Volumes

P442

Tow: M-01-009 RV_Connecticut

Date: 13 July 2010

Temperature Probe # 5164 Conductivity Probe # 120 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOORENESS STATISTICAL SUMMARY

st#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	005.1	320.5	161.8	07.0	23.8	11.9	06.9	23.8	11.9	00.01	35.55	32.19
1	249.2	302.7	276.9	07.4	08.4	07.9	07.4	08.3	07.9	35.05	35.10	35.07
2	206.2	248.2	227.4	08.4	09.8	09.0	08.4	09.8	09.0	35.10	35.22	35.14
3	155.7	205.2	182.2	09.8	12.1	11.2	09.8	12.1	11.1	35.22	35.50	35.39
4	106.2	154.9	128.7	12.1	13.1	12.6	12.1	13.1	12.6	35.46	35.61	35.51
5	081.4	105.8	093.4	13.0	13.9	13.3	13.0	13.8	13.2	35.32	35.46	35.40
6	055.8	080.7	069.1	13.4	14.7	14.3	13.3	14.7	14.3	35.21	35.46	35.35
7	031.4	054.7	041.4	12.2	15.0	13.3	12.1	15.0	13.3	34.14	35.19	34.40
8	005.7	031.3	018.8	14.2	22.5	18.0	14.2	22.5	18.0	32.26	34.40	33.09

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.64	27.47	24.40	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.30	27.40	27.35	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	27.16	27.29	27.23	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.97	27.16	27.05	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.76	26.96	26.86	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	26.49	26.75	26.65	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	26.28	26.57	26.39	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	25.52	26.27	25.87	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	22.07	25.52	23.78	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irragv
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	33.0	83.0	52.6	00.0	02.3	01.6	-26.4	08.5	-10.3	00443	01405
1	47.0	56.0	50.4	01.9	02.7	02.4	-00.4	14.2	05.8	00138	00561
2	50.0	58.0	54.2	02.3	03.1	02.8	03.3	09.3	06.5	00100	00429
3	55.0	61.0	57.2	02.7	03.1	03.0	01.9	07.6	05.0	00151	00679
4	54.0	60.0	56.5	02.7	03.1	03.0	04.3	09.1	06.6	00113	00498
5	51.0	58.0	54.4	02.3	03.1	02.8	03.3	08.7	05.5	00068	00301
6	49.0	58.0	52.2	02.3	03.1	02.7	02.9	09.1	06.4	00057	00256
7	50.0	57.0	53.4	02.3	03.1	02.7	02.3	08.7	05.6	00067	00297
8	49.0	60.0	53.2	-273.3	03.1	-29.8	-00.2	17.2	05.7	00068	00289

net#	Year/day/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
0	194.831076	19:56:44	005.1	320.5	161.8	00443	01405
1	194.863079	20:42:50	249.2	302.7	276.9	00138	00561
2	194.869583	20:52:11	206.2	248.2	227.4	00100	00429
3	194.874282	20:58:57	155.7	205.2	182.2	00151	00679
4	194.881343	21:9:8	106.2	154.9	128.7	00113	00498
5	194.886643	21:16:45	081.4	105.8	093.4	00068	00301
6	194.889850	21:21:23	055.8	080.7	069.1	00057	00256
7	194.892535	21:25:15	031.4	054.7	041.4	00067	00297
8	194.895694	21:29:47	005.7	031.3	018.8	00068	00289
9	194.902303	21:39:18					

← a few flow counts
may have been
lost when acq
program in re-boot

W009NESS [Data Acquisition and Control System]

51 Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters

Time 21:40:43
 Pressure
 Temp 22.81 C
 Salinity 9.28 o/oo
 Density 4.588
 Oxygen
 Fluoresc.
 LightXmis
 Irradiance

Net Operation

Net_Num 9
 OpenTime
 Vol_Filtered
 Angle
 Flow_Counts 17
 Hor_Vel 1.9 kts
 Vert_Vel 5.5 m/min
 Battery

Net - Ship Position

Latitude
 Longitude
 Net_Dist
 Total_Dist

Pause Acqui

Reset

Baud Rate 2400
 Sample Rate 4.0 sec
 Printer Off

Program Settings

Processed

File Name

C:\MOCNESS\MOCDATA\CT_KRILL\M009.PRO

Raw File

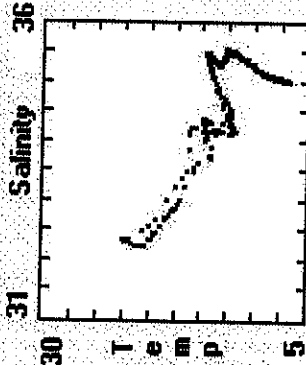
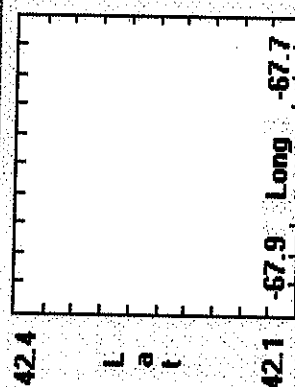
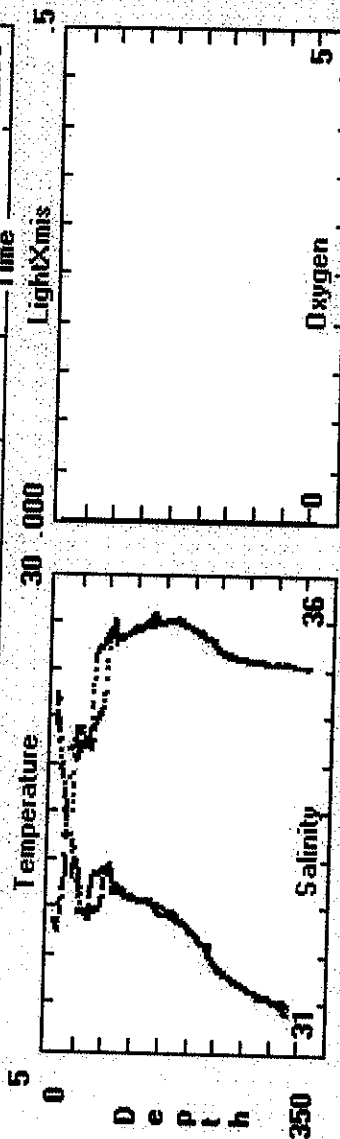
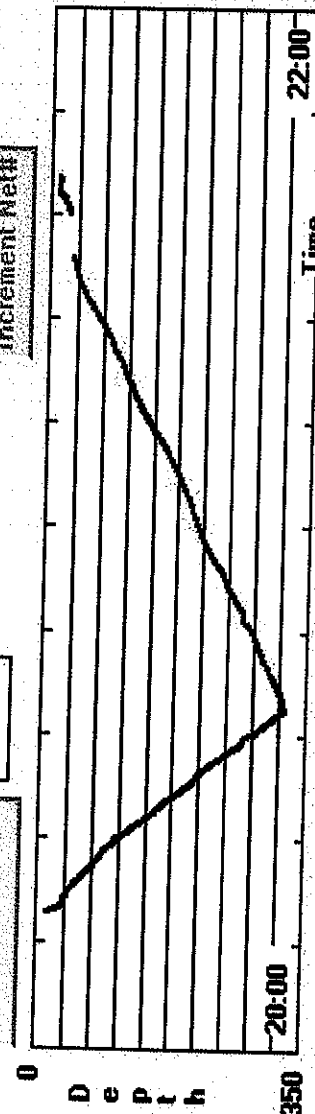
C:\MOCNESS\MOCDATA\CT_KRILL\M_1_009.RAW

Name

Acquisition Ended. tps = 0

Step STBD Net

Increment Net#



MOCNESS DATA SHEET

 Site CT-CANYONS Location East of Veach Canyon Tow # M-01-010

 Date 14 July 2010 Wind Speed 15-25 Kt Direction SW

 Year/Day 195 Sea State 5-8' swell - choppy - fairing

 Local Time 1627 to Start Lat 39 53.34 Long 69 17.31

 GMT Time 1857 to End Lat 39 51.43 Long 69 23.07

 Net Size 1-M² Net Condition Good

 Net Mesh 333µ

 YD Time
for TS plot
uptrace - start up
195.720926
uptrace - end
195.788947

 Processed M-01-010.110 Raw Filename M-01-010.110
Filename

Very nice tow!
deep tow off shelf away from Canyons

NET TOW INFORMATION

Time Open	Angle	Flow Counts	Volume Filtered	MWO Net
--------------	-------	----------------	--------------------	------------

SAMPLE INFORMATION

Jar #

Start	1627			
Net 0	1700	30	212	1465.8 700
Net 1	1718	33	71	522.9 215
Net 2	1732	35	155	1091.7 600
Net 3	1757	31	172	1178.9 400
Net 4	1824	33	79	508.7 195
Net 5	1834	35	44	280.6 98.5
Net 6	1839	40	42	261.8 75
Net 7	1845	~40	41	247.3 50
Net 8	1849	~45	74	422.7 25
Closed	1856			0

 See revised volumes next page
PHW 18 Nov 2010

Net 0	Net response
Net 1	Net response
Net 2	Net response
Net 3	Net response
Net 4	Net response
Net 5	Net response
Net 6	Net response
Net 7	Net response
Net 8	Net response

 COMMENTS: Heavy downpour as net deployed -

18 Nov 2010 PHL

New Volume

Tow: M-01-010 RV_Connecticut

Date: 14 July 2010

Temperature Probe # 5164 Conductivity Probe # 120 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOORESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	005.5	721.5	340.9	04.7	22.3	09.0	04.6	22.3	09.0	00.01	35.60	34.38
1	605.4	717.1	660.0	04.7	05.2	04.9	04.6	05.1	04.8	34.94	34.97	34.96
2	406.4	605.3	495.1	05.2	06.1	05.6	05.1	06.1	05.5	34.97	35.01	34.98
3	201.4	406.1	309.7	06.1	10.4	07.6	06.1	10.4	07.6	35.00	35.29	35.08
4	104.5	199.6	152.2	10.6	13.2	12.4	10.5	13.2	12.4	35.32	35.53	35.49
5	079.9	102.8	088.3	13.2	14.0	13.6	13.2	14.0	13.5	35.28	35.45	35.40
6	055.2	080.3	069.7	12.2	14.6	13.5	12.2	14.6	13.5	34.48	35.56	35.10
7	031.3	054.0	039.8	11.6	14.0	13.0	11.6	14.0	13.0	33.68	34.55	33.98
8	005.4	031.5	019.0	14.0	21.2	17.8	14.0	21.2	17.8	32.14	33.70	33.02

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.29	27.69	26.56	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.64	27.68	27.66	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	27.54	27.64	27.60	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	27.12	27.54	27.39	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.69	27.11	26.88	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	26.52	26.68	26.59	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	26.04	26.57	26.37	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	25.17	26.04	25.59	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	22.28	25.18	23.78	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.0000000000	0.0000000000	0.0000000000
1	0.0000000000	0.0000000000	0.0000000000
2	0.0000000000	0.0000000000	0.0000000000
3	0.0000000000	0.0000000000	0.0000000000
4	0.0000000000	0.0000000000	0.0000000000
5	0.0000000000	0.0000000000	0.0000000000
6	0.0000000000	0.0000000000	0.0000000000
7	0.0000000000	0.0000000000	0.0000000000
8	0.0000000000	0.0000000000	0.0000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	17.0	85.0	37.3	00.0	03.9	00.9	-33.0	05.6	-14.1	00764	01497
1	21.0	43.0	28.8	00.8	01.6	01.1	03.5	13.6	08.1	00207	00539
2	26.0	47.0	32.3	00.8	01.6	01.3	-03.7	18.5	07.8	00383	01126
3	28.0	42.0	33.8	00.8	01.9	01.4	-04.3	20.0	07.7	00393	01216
4	30.0	47.0	36.6	01.2	01.9	01.6	00.8	17.7	09.6	00153	00525
5	32.0	50.0	40.3	01.2	01.9	01.7	-03.1	13.6	04.5	00081	00289
6	34.0	51.0	41.1	01.6	02.3	01.7	-01.5	11.3	04.6	00078	00270
7	33.0	51.0	42.7	01.6	02.3	01.9	-00.2	10.7	05.6	00066	00255
8	38.0	60.0	46.6	01.9	02.7	02.2	-00.2	08.5	03.7	00103	00435

net#	Yearday/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
		(NetOpenTime)					
0	195.681933	16:21:59	005.5	721.5	340.9	00764	01497
1	195.720972	17:18:11	605.4	717.1	660.0	00207	00539
2	195.730637	17:32:7	406.4	605.3	495.1	00383	01126
3	195.748484	17:57:49	201.4	406.1	309.7	00393	01216
4	195.766782	18:24:9	104.5	199.6	152.2	00153	00525
5	195.773935	18:34:27	079.9	102.8	088.3	00081	00289
6	195.777755	18:39:58	055.2	080.3	069.7	00078	00270
7	195.781424	18:45:15	031.3	054.0	039.8	00066	00255
8	195.784537	18:49:43	005.4	031.5	019.0	00103	00435
9	195.789363	18:56:40					

MOONSS Data Acquisition and Control System

51 Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters

Time 18:57:16
 Pressure
 Temp 21.65 C
 Salinity 1.13 o/oo
 Density -1.286
 Oxygen
 Fluoresc.
 LightXmis
 Irradiance

Net Operation

Net_Num 9
 OpenTime
 Vol_Filtered
 Angle
 Flow_Counts 5
 Hor_Vel 1.6 kts
 Vert_Vel 2.2 m/min
 Battery

Net - Ship Position

Latitude 39N 51.434
 Longitude 69W 23.066
 Net_Dist 35.6 m
 Total_Dist 8871.9 m

Pause Acqui Reset

Baud Rate 2400
 Sample Rate 4.0 sec
 Printer Off

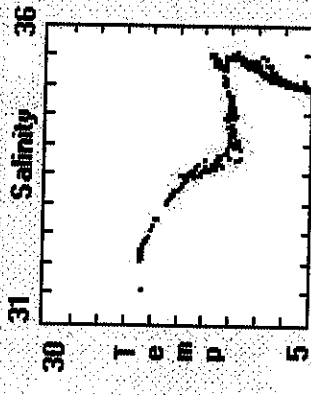
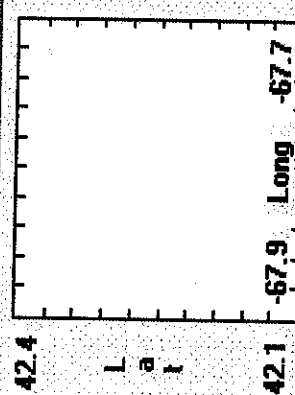
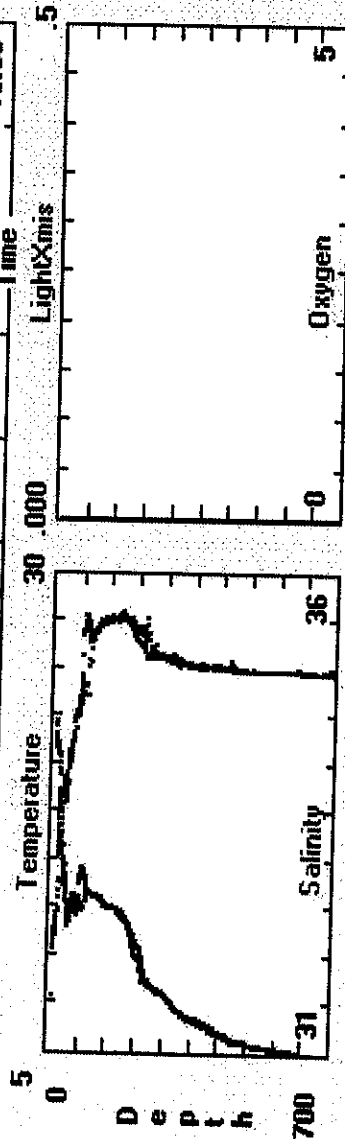
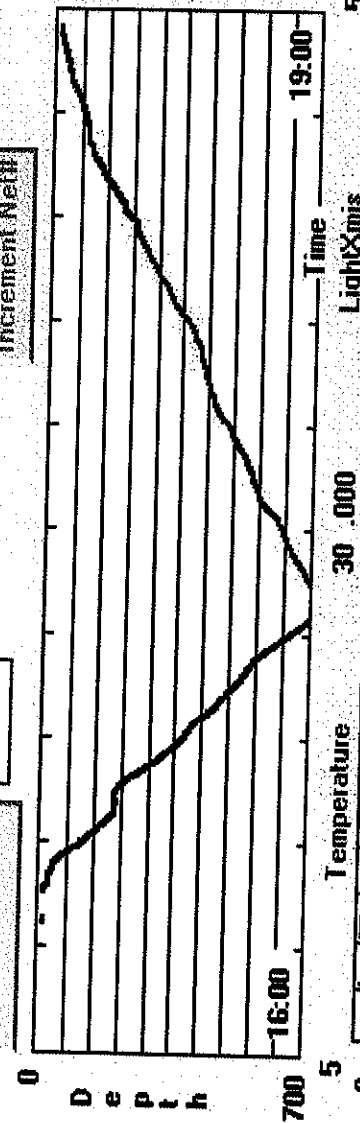
Processed

File Name C:\MOONSS\MOCDATA\CT_KRILL\M010.PRO
 Raw File Name C:\MOONSS\MOCDATA\CT_KRILL\M_01_010.RA

Acquisition Ended. tsys = 0

Step STBD Net

Increment Net#



End Acqui

MOCNESS DATA SHEET

Site CT-Canyons Location West of Atlantis Pioneer Line Tow # M-01-011

Date 15 July 2010 Wind Speed ~5 Kts Direction 5

Year/Day 196 Sea State 3-5 swell - light winds

Local Time 0739 to 1005 Start Lat 39 48.54 Long -70 39.91

GMT Time _____ to _____ End Lat 39 48.65 Long -70 44.91

Net Size 1-m² Net Condition Good

Net Mesh 333 μ m

40-Time for
TS PLOT
uptrace - start up
196.349502
uptrace - end
196.419155

Processed m-01-011.pro

Raw Filename M-01-011.raw

Filename Tow west of Atlantis Canyon in presence of WCRing.

NET TOW INFORMATION

DEPTH

Time Angle Flow Volume
Open Counts Filtered

~~MEVO~~

SAMPLE INFORMATION

Jar #

Net
OPENED

Time	Angle	Flow	Volume	Depth
Open		Counts	Filtered	Net
Start	0739			
Net 0		230 228	1563.1	717
Down	0822			
Net 1	0823	~32 96	679.9	719
Net 2	0838	~43 190	1233.1	600
Net 3	0902	~49 323	1711.1	400
Net 4	0931	~52 133	638.0	197
Net 5	0942	~52 52	162.0	100
Net 6	0946	~52 60	323.5	75
Net 7	0957	~52 73	382.2	52
Net 8	0958	~ 67	345.2	26
Closed	1003			0

See revised volumes next page
pHw
15 Nov 2010

Net 0 _____
Net 1 Net response
Net 2 Net response
Net 3 Net response
Net 4 No net response - big angle change
Net 5 Net response
Net 6 Net response
Net 7 Net response
Net 8 Net response
Net 9 Net response

COMMENTS: Cloudy - looks like rain possible
with patchy sun

18 Nov 2010

New Volume

Pttw

Tow: M-01-011 RV_Connecticut

Date: 15 July 2010

Temperature Probe # 5164 Conductivity Probe # 120 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	004.8	725.0	337.0	04.9	27.1	11.3	04.8	27.1	11.2	00.02	36.26	34.24
1	605.4	724.9	665.8	04.9	05.7	05.3	04.8	05.6	05.2	34.96	35.00	34.98
2	406.7	604.0	491.5	05.7	08.4	07.1	05.6	08.3	07.0	34.99	35.09	35.05
3	202.2	406.4	307.9	08.4	12.6	10.5	08.3	12.6	10.5	35.07	35.57	35.32
4	106.1	200.7	150.7	12.6	16.0	14.0	12.6	16.0	14.0	35.57	36.02	35.75
5	080.3	105.5	091.3	16.0	16.6	16.4	16.0	16.5	16.4	35.90	36.06	35.99
6	057.0	079.6	067.8	16.3	19.1	17.2	16.3	19.1	17.2	35.72	35.98	35.84
7	031.0	056.8	042.7	19.0	25.3	21.8	19.0	25.3	21.8	35.62	36.27	35.98
8	004.4	030.7	017.7	24.8	27.6	26.7	24.8	27.6	26.7	34.73	35.90	35.10

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-03.37	27.68	26.02	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.59	27.66	27.63	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	27.29	27.59	27.45	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.91	27.29	27.11	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.55	26.91	26.76	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	26.32	26.55	26.43	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	25.68	26.31	26.11	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.06	25.66	25.00	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	22.53	23.99	22.90	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

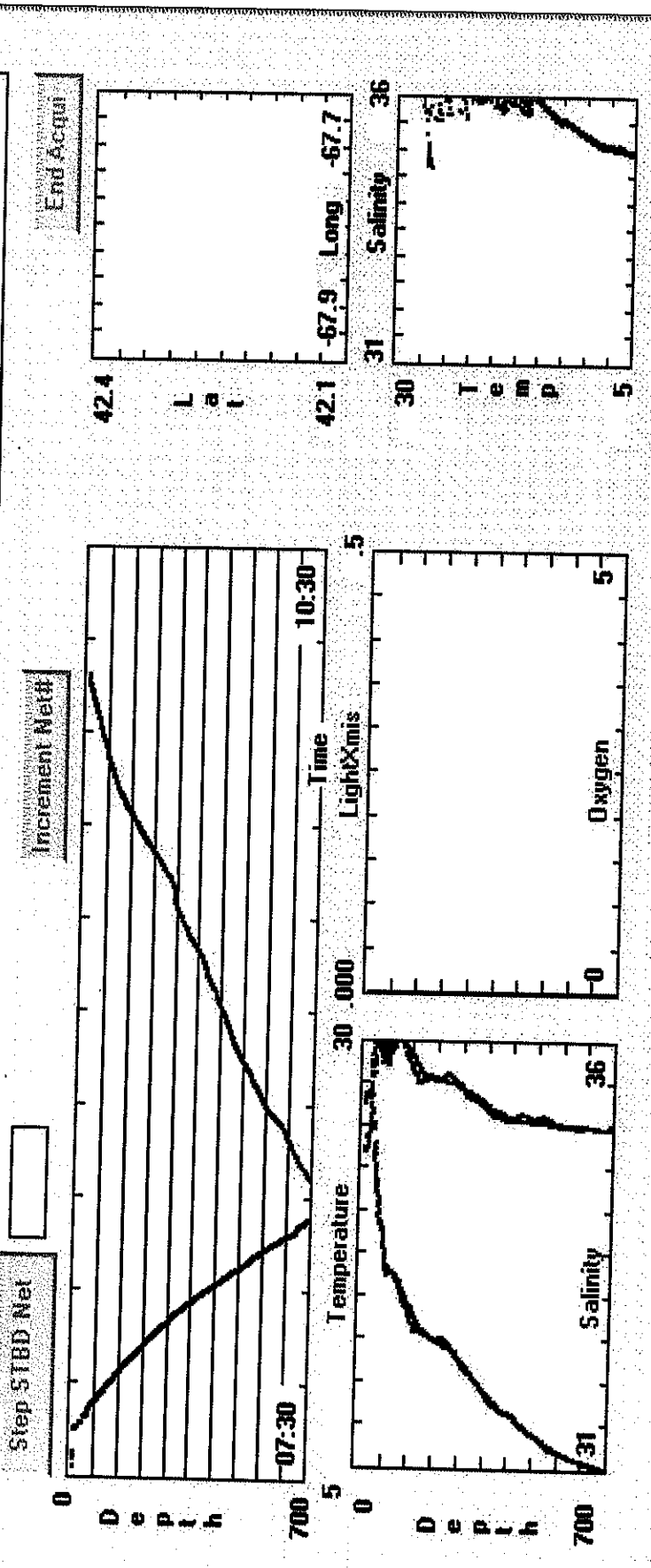
net#	irrmin	irrmax	irragv
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	18.0	63.0	41.1	00.0	30.0	01.5	-39.7	01.7	-16.7	00652	01441
1	21.0	39.0	31.3	00.8	01.6	01.3	-02.0	15.5	07.9	00222	00701
2	27.0	50.0	36.5	01.2	02.3	01.6	01.4	19.3	08.3	00359	01272
3	42.0	57.0	48.6	01.6	02.7	02.3	-07.4	12.0	07.0	00437	01765
4	48.0	57.0	51.7	02.3	03.1	02.6	05.6	12.8	09.1	00158	00653
5	48.0	57.0	51.6	02.3	02.7	02.5	01.8	10.7	06.0	00064	00270
6	44.0	55.0	49.3	01.9	02.7	02.3	-01.0	08.6	04.4	00080	00333
7	47.0	58.0	51.1	02.3	02.7	02.4	01.6	07.4	04.2	00093	00394
8	43.0	64.0	51.5	02.3	03.1	02.5	02.9	07.6	04.8	00082	00356

net#	YearDay/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
(NetOpenTime)							
0	196.313924	7:32:3	004.8	725.0	337.0	00652	01441
1	196.349595	8:23:25	605.4	724.9	665.8	00222	00701
2	196.359965	8:38:20	406.7	604.0	491.5	00359	01272
3	196.376690	9:2:26	202.2	406.4	307.9	00437	01765
4	196.397083	9:31:47	106.1	200.7	150.7	00158	00653
5	196.404479	9:42:26	080.3	105.5	091.3	00064	00270
6	196.407488	9:46:46	057.0	079.6	067.8	00080	00333
7	196.411262	9:52:13	031.0	056.8	042.7	00093	00394
8	196.415625	9:58:30	004.4	030.7	017.7	00082	00356
9	196.419479	10:4:2					

Environmental Parameters Net Operation Net - Ship Position Program Settings

Time	10:54:40	Net_Num	9	Latitude	39N 48.654	Pause Acqui	Reset
Pressure		OpenTime		Longitude	70W 44.907	Baud Rate	2400
Temp	26.44 C	Vol_Filtered		Net_Dist	87.1 m	Sample Rate	4.0 sec
Salinity	25.44 o/oo	Angle		Total_Dist	7366.5 m	Printer	Off
Density	15.706	Flow_Counts	20	Processed File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M011.PRO		
Oxygen		Hor_Vel	1.9 kts	Raw File Name	C:\MOCNESS\MOCDATA\ACT_KRILL\M_01_011.RA		
Fluoresc.		Vert_Vel	1.8 m/min	Acquisition Ended. trys = 0			
LightXmis		Battery					
Irradiance							



MOCNESS DATA SHEET

Site CT-Canyons Location West of Atlantis Canyon Tow # M-01-012
Pioneer Line
 Date 16 July 2010 Wind Speed 5 Kt Direction SW
 Year/Day 196 Sea State 2-3 ft swells light winds - broken clouds
 Local Time 1846 to _____ Start Lat 39 57.37 Long 70 40.30
 GMT Time _____ to _____ End Lat _____ Long _____
 Net Size 1-m² Net Condition Good
 Net Mesh 333 μ m
 Processed M-01-012.Pro Raw Filename M-01-012.Raw
 Filename

NET TOW INFORMATION

DEPTH

Time Angle Flow Volume ~~Net~~
 Open Counts Filtered Net

SAMPLE INFORMATION

Jar #

Start 1846
 Net 0 2017 52 927 4834.1 300
 Net 1 2018 57 131 599.1 300
 Net 2 2028 55 78 364.3 250
 Net 3 2034 55 101 467.5 200
 Net 4 2041 55 102 473.3 150
 Net 5 2048 55 66 310.2 100
 Net 6 2053 53 67 322.2 75
 Net 7 2059 57 60 290.7 50
 Net 8 2103 50 67 +13 318.3 25
 Closed 2108 0

See revised volumes on

Net 0 Net response Run #1 Start FC 42
 Net 1 Net response Run #1 End FC 275
 Net 2 Net response Run #2 Start FC 434
 Net 3 No Net response Run #2 End FC 780
 Net 4 but angle change No Net response Run #1 DIFFERENCE 233
 Net 5 but some angle change No Net response Run #2 DIFFERENCE 346
 Net 6 angle changed some Net response Average FC = 289.5
 Net 7 Net response
 Net 8 No Net response on closing
 $\Rightarrow$ got net response Meter/FC = 6.3972
 #10

COMMENTS: Flowmeter calibration done at the start of the tow - Angle on Run #2
 a bit high ($\approx 60^\circ$)

Sound = 8+9

Tow: M-01-012 RV_Connecticut

Date: 16 July 2010

Temperature Probe # 5164 Conductivity Probe # 120 Pressure Probe # 124

Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

New Volume

18 Nov 2010
Pttw

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	004.8	313.8	052.9	09.3	26.7	22.7	09.3	26.7	22.7	00.01	36.34	35.17
1	256.2	304.2	283.2	09.4	10.9	10.1	09.3	10.9	10.1	35.20	35.37	35.27
2	205.6	255.0	232.5	10.9	12.3	11.7	10.9	12.3	11.6	35.37	35.57	35.47
3	154.5	204.7	178.2	12.4	13.4	12.9	12.4	13.4	12.9	35.60	35.69	35.64
4	104.2	152.8	128.9	13.4	15.6	14.4	13.4	15.5	14.4	35.70	35.96	35.82
5	078.3	102.7	088.5	15.6	16.6	16.2	15.6	16.6	16.2	35.92	35.99	35.97
6	055.9	077.1	068.9	16.7	18.4	17.2	16.7	18.4	17.1	35.92	36.01	35.97
7	031.0	055.1	040.8	18.4	22.6	20.7	18.4	22.6	20.7	35.57	36.36	36.03
8	005.0	030.6	015.6	22.3	26.5	25.0	22.2	26.5	25.0	32.70	35.73	34.57

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.71	27.24	24.07	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.09	27.22	27.15	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.97	27.08	27.02	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.86	26.97	26.91	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.58	26.86	26.74	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	26.37	26.56	26.46	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	25.90	26.35	26.23	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.67	25.89	25.36	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	21.49	24.62	23.01	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irragv
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	35.0	70.0	54.0	00.0	03.9	02.1	-24.5	13.8	-03.3	01393	04959
1	50.0	59.0	56.3	02.3	03.1	02.8	00.9	08.3	05.1	00144	00618
2	53.0	58.0	55.5	02.7	03.1	03.0	06.2	11.2	08.6	00085	00376
3	52.0	60.0	54.8	02.7	03.1	02.9	03.9	11.2	07.0	00110	00482
4	52.0	59.0	54.5	02.7	03.5	02.9	04.7	08.7	06.8	00110	00483
5	52.0	58.0	54.5	02.3	03.5	02.8	-00.4	08.5	05.4	00071	00314
6	50.0	61.0	54.1	02.3	03.5	02.7	00.0	08.2	04.4	00075	00327
7	50.0	59.0	53.7	02.3	03.1	02.7	00.4	09.7	05.5	00069	00300
8	43.0	62.0	54.1	02.3	03.1	02.8	-03.5	08.6	04.4	00088	00403

net#	Yearday/Time	hh:mm:ss	pmin	pmax	pavg	#obs	vol
0	196.777245	18:39:13	004.8	313.8	052.9	01393	04959
1	196.846273	20:18:37	256.2	304.2	283.2	00144	00618
2	196.853009	20:28:19	205.6	255.0	232.5	00085	00376
3	196.857002	20:34:4	154.5	204.7	178.2	00110	00482
4	196.862211	20:41:35	104.2	152.8	128.9	00110	00483
5	196.867407	20:49:3	078.3	102.7	088.5	00071	00314
6	196.870799	20:53:57	055.9	077.1	068.9	00075	00327
7	196.874329	20:59:2	031.0	055.1	040.8	00069	00300
8	196.877593	21:3:44	005.0	030.6	015.6	00088	00403
9	196.881725	21:9:41					

WATTS Data Acquisition and Control System

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters

Time 21:10:25
 Pressure
 Temp 23.22 C
 Salinity 4.83 o/oo
 Density 1.138
 Oxygen
 Fluoresc.
 LightXmis
 Irradiance

Net Operation

Net_Num 9
 OpenTime
 Vol_Filtered
 Angle
 Flow_Counts 6
 Hor_Vel 0.8 kts
 Vert_Vel 0.6 m/min
 Battery

Net - Ship Position

Latitude 39N 58.118
 Longitude 70W 44.228
 Net_Dist 57.0 m
 Total_Dist 4035.6 m

Pause Acqui Reset

Baud Rate 2400

Sample Rate 4.0 sec

Printer

Processed

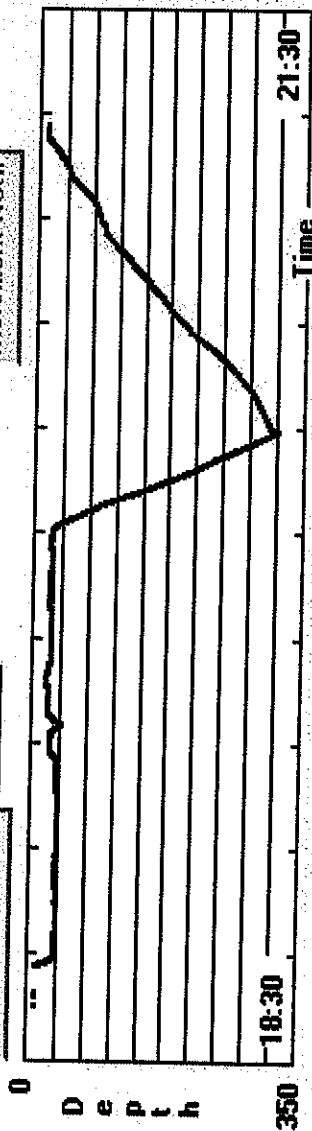
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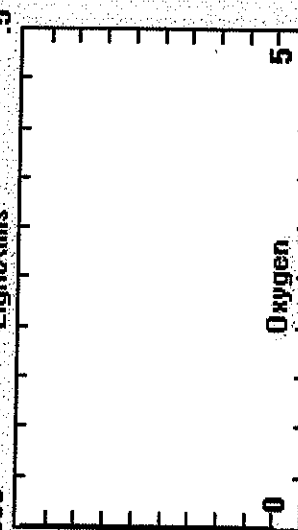
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Step STBD Net

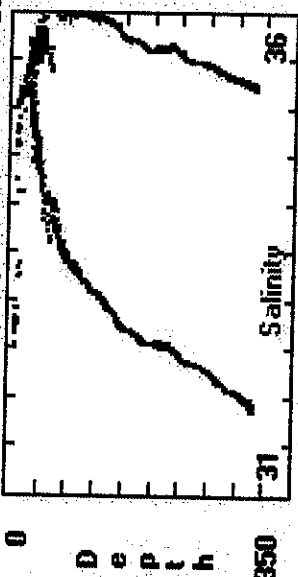
Increment Net#



LightXmis



Temperature



End Acqui

